0590/0920

#6

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/784,911

DATE: 10/01/2001
TIME: 10:21:25

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

```
  3 <110> APPLICANT: Harrison, Leonard C.
  4       Jiang, Fang-Xu
  5       Stanley, Edouard Guy
  6       Gonez, Leonel Jorge
  8 <120> TITLE OF INVENTION: Pancreatic islet cell growth factors
 10 <130> FILE REFERENCE: Davies Collison Cave
 12 <140> CURRENT APPLICATION NUMBER: 09/784,911
C--> 13 <141> CURRENT FILING DATE: 2001-09-17
 15 <160> NUMBER OF SEQ ID NOS: 30
 17 <170> SOFTWARE: PatentIn version 2.1
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 1260
 21 <212> TYPE: DNA
 22 <213> ORGANISM: mouse
 24 <220> FEATURE:
 25 <221> NAME/KEY: CDS
 26 <222> LOCATION: (1)..(1260)
 28 <220> FEATURE:
 29 <221> NAME/KEY: UNSURE
 30 <222> LOCATION: (186)
 31 <223> OTHER INFORMATION: Xaa at position 186 is Tyr or His
 33 <400> SEQUENCE: 1
 34   atg gcg cgc ctg atg att cct ggt aac cga atg ctg atg gtc gtt tta       48
 35   Met Ala Arg Leu Met Ile Pro Gly Asn Arg Met Leu Met Val Val Leu
 36   1               5                   10                  15
 38   tta tgc caa gtc ctg cta gga ggc gcg agc cat gct agt ttg ata cct       96
 39   Leu Cys Gln Val Leu Leu Gly Gly Ala Ser His Ala Ser Leu Ile Pro
 40               20                  25                  30
 42   gag acc ggg aag aaa aaa gtc gcc gag att cag ggc cac gcg gga gga      144
 43   Glu Thr Gly Lys Lys Lys Val Ala Glu Ile Gln Gly His Ala Gly Gly
 44           35                  40                  45
 46   cgc cgc tca ggg cag agc cat gag ctc ctg cgg gac ttc gag gcg aca      192
 47   Arg Arg Ser Gly Gln Ser His Glu Leu Leu Arg Asp Phe Glu Ala Thr
 48       50                  55                  60
 50   ctt cta cag atg ttt ggg ctg cgc cgc cgt ccg cag cct agc aag agc      240
 51   Leu Leu Gln Met Phe Gly Leu Arg Arg Arg Pro Gln Pro Ser Lys Ser
 52   65                  70                  75                  80
 54   gcc gtc att ccg gat tac atg agg gat ctt tac cgg ctc cag tct ggg      288
 55   Ala Val Ile Pro Asp Tyr Met Arg Asp Leu Tyr Arg Leu Gln Ser Gly
 56                   85                  90                  95
 58   gag gag gag gag gaa gag cag agc cag gga acc ggg ctt gag tac ccg      336
 59   Glu Glu Glu Glu Glu Glu Gln Ser Gln Gly Thr Gly Leu Glu Tyr Pro
 60               100                 105                 110
 62   gag cgt ccc gcc agc cga gcc aac act gtg agg agt ttc cat cac gaa      384
 63   Glu Arg Pro Ala Ser Arg Ala Asn Thr Val Arg Ser Phe His His Glu
 64           115                 120                 125
 66   gaa cat ctg gag aac atc cca ggg acc agt gag agc tct gct ttt cgt      432
```

ENTERED

p. 5

RAW SEQUENCE LISTING DATE: 10/01/2001
PATENT APPLICATION: US/09/784,911 TIME: 10:21:25

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

```
     67  Glu His Leu Glu Asn Ile Pro Gly Thr Ser Glu Ser Ser Ala Phe Arg
     68      130                 135                 140
     70  ttc ctc ttc aac ctc agc agc atc cca gaa aat gag gtg atc tcc tcg      480
     71  Phe Leu Phe Asn Leu Ser Ser Ile Pro Glu Asn Glu Val Ile Ser Ser
     72  145                 150                 155                 160
     74  gca gag ctc cgg ctc ttt cgg gag cag gtg gac cag ggc cct gac tgg      528
     76  Ala Glu Leu Arg Leu Phe Arg Glu Gln Val Asp Gln Gly Pro Asp Trp
     77                  165                 170                 175
     79  gaa cag ggc ttc cac cgt ata aac att yat gag gtt atg aag ccc cca      576
W--> 80  Glu Gln Gly Phe His Arg Ile Asn Ile Xaa Glu Val Met Lys Pro Pro
     81              180                 185                 190
     83  gca gaa atg gtt cct gga cac ctc atc aca cga cta ctg gac acc aga      624
     84  Ala Glu Met Val Pro Gly His Leu Ile Thr Arg Leu Leu Asp Thr Arg
     85          195                 200                 205
     87  cta gtc cat cac aat gtg aca cgg tgg gaa act ttc gat gtg agc cct      672
     88  Leu Val His His Asn Val Thr Arg Trp Glu Thr Phe Asp Val Ser Pro
     89      210                 215                 220
     91  gca gtc ctt cgc tgg acc cgg gaa aag caa ccc aat tat ggg ctg gcc      720
     92  Ala Val Leu Arg Trp Thr Arg Glu Lys Gln Pro Asn Tyr Gly Leu Ala
     93  225                 230                 235                 240
     95  att gag gtg act cac ctc cac cag aca cgg acc cac cag ggc cag cat      768
     96  Ile Glu Val Thr His Leu His Gln Thr Arg Thr His Gln Gly Gln His
     97                  245                 250                 255
     99  gtc aga atc agc cga tcg tta cct caa ggg agt gga gat tgg gcc caa      816
    100   Val Arg Ile Ser Arg Ser Leu Pro Gln Gly Ser Gly Asp Trp Ala Gln
    101              260                 265                 270
    103   ctc cgg ccc ctc ctg gtc act ttt ggc cat gat ggc cgg ggc cat acc      864
    104   Leu Arg Pro Leu Leu Val Thr Phe Gly His Asp Gly Arg Gly His Thr
    105          275                 280                 285
    107   ttg acc cgc agg agg gcc aaa cgt agt ccc aag acg cgc cag gag gag      912
    108   Leu Thr Arg Arg Arg Ala Lys Arg Ser Pro Lys Thr Arg Gln Glu Glu
    109      290                 295                 300
    111   gaa tac atg ccc atg gag acg cgt agg aag aag aat aag aac tgc cgt      960
    112   Glu Tyr Met Pro Met Glu Thr Arg Arg Lys Lys Asn Lys Asn Cys Arg
    113  305                 310                 315                 320
    115   cgc cat tca cta tac gtg gac ttc agt gac gtg ggc tgg aat gat tgg     1008
    116   Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp
    117                  325                 330                 335
    119   att gtg gcc cca ccc ggc tac cag gcc ttc tac tgc cat ggg gac tgt     1056
    120   Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp Cys
    121              340                 345                 350
    123   ccc ttt cca ctg gct gat cac ctc aac tca acc aac cat gcc att gtg     1104
    125   Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val
    126          355                 360                 365
    128   cag acc cta gtc aac tct gtt aat tct agt atc cct aag gcc tgt tgt     1152
    129   Gln Thr Leu Val Asn Ser Val Asn Ser Ser Ile Pro Lys Ala Cys Cys
    130      370                 375                 380
    132   gtc ccc act gaa ctg agt gcc att tcc atg ttg tac ctg gat gag tat     1200
    133   Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Tyr
```

RAW SEQUENCE LISTING DATE: 10/01/2001
PATENT APPLICATION: US/09/784,911 TIME: 10:21:25

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

```
134   385                 390                 395                 400
136   gac aag gtg gtg ttg aaa aat tat cag gag atg gtg gta gag ggg tgt     1248
137   Asp Lys Val Val Leu Lys Asn Tyr Gln Glu Met Val Val Glu Gly Cys
138                   405                 410                 415
140   gga tgc cgc tga                                                   1260
141   Gly Cys Arg
145 <210> SEQ ID NO: 2
146 <211> LENGTH: 419
147 <212> TYPE: PRT
148 <213> ORGANISM: mouse
150 <220> FEATURE:
151 <221> NAME/KEY: UNSURE
152 <222> LOCATION: (186)
153 <223> OTHER INFORMATION: Xaa at position 186 is Tyr or His
155 <400> SEQUENCE: 2
157   Met Ala Arg Leu Met Ile Pro Gly Asn Arg Met Leu Met Val Val Leu
158   1               5                   10                  15
161   Leu Cys Gln Val Leu Leu Gly Gly Ala Ser His Ala Ser Leu Ile Pro
162               20                  25                  30
165   Glu Thr Gly Lys Lys Lys Val Ala Glu Ile Gln Gly His Ala Gly Gly
166           35                  40                  45
169   Arg Arg Ser Gly Gln Ser His Glu Leu Leu Arg Asp Phe Glu Ala Thr
170       50                  55                  60
173   Leu Leu Gln Met Phe Gly Leu Arg Arg Arg Pro Gln Pro Ser Lys Ser
174   65                  70                  75                  80
177   Ala Val Ile Pro Asp Tyr Met Arg Asp Leu Tyr Arg Leu Gln Ser Gly
178                   85                  90                  95
181   Glu Glu Glu Glu Glu Glu Gln Ser Gln Gly Thr Gly Leu Glu Tyr Pro
182               100                 105                 110
185   Glu Arg Pro Ala Ser Arg Ala Asn Thr Val Arg Ser Phe His His Glu
186           115                 120                 125
189   Glu His Leu Glu Asn Ile Pro Gly Thr Ser Glu Ser Ser Ala Phe Arg
190       130                 135                 140
193   Phe Leu Phe Asn Leu Ser Ser Ile Pro Glu Asn Glu Val Ile Ser Ser
194   145                 150                 155                 160
196   Ala Glu Leu Arg Leu Phe Arg Glu Gln Val Asp Gln Gly Pro Asp Trp
197                   165                 170                 175
W--> 199   Glu Gln Gly Phe His Arg Ile Asn Ile Xaa Glu Val Met Lys Pro Pro
200               180                 185                 190
202   Ala Glu Met Val Pro Gly His Leu Ile Thr Arg Leu Leu Asp Thr Arg
203           195                 200                 205
206   Leu Val His His Asn Val Thr Arg Trp Glu Thr Phe Asp Val Ser Pro
207       210                 215                 220
209   Ala Val Leu Arg Trp Thr Arg Glu Lys Gln Pro Asn Tyr Gly Leu Ala
210   225                 230                 235                 240
212   Ile Glu Val Thr His Leu His Gln Thr Arg Thr His Gln Gly Gln His
213                   245                 250                 255
215   Val Arg Ile Ser Arg Ser Leu Pro Gln Gly Ser Gly Asp Trp Ala Gln
216               260                 265                 270
```

RAW SEQUENCE LISTING DATE: 10/01/2001
PATENT APPLICATION: US/09/784,911 TIME: 10:21:25

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

```
218   Leu Arg Pro Leu Leu Val Thr Phe Gly His Asp Gly Arg Gly His Thr
219           275                 280                 285
221   Leu Thr Arg Arg Arg Ala Lys Arg Ser Pro Lys Thr Arg Gln Glu Glu
222       290                 295                 300
224   Glu Tyr Met Pro Met Glu Thr Arg Arg Lys Lys Asn Lys Asn Cys Arg
225   305                 310                 315                 320
227   Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp
228                   325                 330                 335
230   Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp Cys
231               340                 345                 350
233   Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val
234           355                 360                 365
236   Gln Thr Leu Val Asn Ser Val Asn Ser Ser Ile Pro Lys Ala Cys Cys
237       370                 375                 380
239   Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Tyr
240   385                 390                 395                 400
242   Asp Lys Val Val Leu Lys Asn Tyr Gln Glu Met Val Val Glu Gly Cys
243                   405                 410                 415
245   Gly Cys Arg
248 <210> SEQ ID NO: 3
249 <211> LENGTH: 1362
250 <212> TYPE: DNA
251 <213> ORGANISM: mouse
253 <220> FEATURE:
254 <221> NAME/KEY: CDS
255 <222> LOCATION: (1)..(1311)
257 <220> FEATURE:
258 <221> NAME/KEY: UNSURE
259 <222> LOCATION: (186)
260 <223> OTHER INFORMATION: Xaa at position 186 is Tyr or His
262 <400> SEQUENCE: 3
263   atg gcg cgc ctg atg att cct ggt aac cga atg ctg atg gtc gtt tta      48
264   Met Ala Arg Leu Met Ile Pro Gly Asn Arg Met Leu Met Val Val Leu
265   1               5                   10                  15
267   tta tgc caa gtc ctg cta gga ggc gcg agc cat gct agt ttg ata cct      96
268   Leu Cys Gln Val Leu Leu Gly Gly Ala Ser His Ala Ser Leu Ile Pro
269               20                  25                  30
271   gag acc ggg aag aaa aaa gtc gcc gag att cag ggc cac gcg gga gga     144
272   Glu Thr Gly Lys Lys Lys Val Ala Glu Ile Gln Gly His Ala Gly Gly
273           35                  40                  45
275   cgc cgc tca ggg cag agc cat gag ctc ctg cgg gac ttc gag gcg aca     192
276   Arg Arg Ser Gly Gln Ser His Glu Leu Leu Arg Asp Phe Glu Ala Thr
277       50                  55                  60
279   ctt cta cag atg ttt ggg ctg cgc cgc cgt ccg cag cct agc aag agc     240
280   Leu Leu Gln Met Phe Gly Leu Arg Arg Arg Pro Gln Pro Ser Lys Ser
281   65                  70                  75                  80
283   gcc gtc att ccg gat tac atg agg gat ctt tac cgg ctc cag tct ggg     288
284   Ala Val Ile Pro Asp Tyr Met Arg Asp Leu Tyr Arg Leu Gln Ser Gly
285                   85                  90                  95
```

RAW SEQUENCE LISTING DATE: 10/01/2001
PATENT APPLICATION: US/09/784,911 TIME: 10:21:25

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

```
     287  gag gag gag gag gaa gag cag agc cag gga acc ggg ctt gag tac ccg      336
     288  Glu Glu Glu Glu Glu Glu Gln Ser Gln Gly Thr Gly Leu Glu Tyr Pro
     289              100                 105                 110
     291  gag cgt ccc gcc agc cga gcc aac act gtg agg agt ttc cat cac gaa      384
     292  Glu Arg Pro Ala Ser Arg Ala Asn Thr Val Arg Ser Phe His His Glu
     293          115                 120                 125
     295  gaa cat ctg gag aac atc cca ggg acc agt gag agc tct gct ttt cgt      432
     296  Glu His Leu Glu Asn Ile Pro Gly Thr Ser Glu Ser Ser Ala Phe Arg
     297      130                 135                 140
     299  ttc ctc ttc aac ctc agc agc atc cca gaa aat gag gtg atc tcc tcg      480
     300  Phe Leu Phe Asn Leu Ser Ser Ile Pro Glu Asn Glu Val Ile Ser Ser
     301  145                 150                 155                 160
     303  gca gag ctc cgg ctc ttt cgg gag cag gtg gac cag ggc cct gac tgg      528
     304  Ala Glu Leu Arg Leu Phe Arg Glu Gln Val Asp Gln Gly Pro Asp Trp
     305                  165                 170                 175
     307  gaa cag ggc ttc cac cgt ata aac att yat gag gtt atg aag ccc cca      576
W--> 308  Glu Gln Gly Phe His Arg Ile Asn Ile Xaa Glu Val Met Lys Pro Pro
     309              180                 185                 190
     311  gca gaa atg gtt cct gga cac ctc atc aca cga cta ctg gac acc aga      624
     312  Ala Glu Met Val Pro Gly His Leu Ile Thr Arg Leu Leu Asp Thr Arg
     313          195                 200                 205
     315  cta gtc cat cac aat gtg aca cgg tgg gaa act ttc gat gtg agc cct      672
     316  Leu Val His His Asn Val Thr Arg Trp Glu Thr Phe Asp Val Ser Pro
     317      210                 215                 220
     319  gca gtc ctt cgc tgg acc cgg gaa aag caa ccc aat tat ggg ctg gcc      720
     320  Ala Val Leu Arg Trp Thr Arg Glu Lys Gln Pro Asn Tyr Gly Leu Ala
     321  225                 230                 235                 240
     323  att gag gtg act cac ctc cac cag aca cgg acc cac cag ggc cag cat      768
     324  Ile Glu Val Thr His Leu His Gln Thr Arg Thr His Gln Gly Gln His
     325                  245                 250                 255
     327  gtc aga atc agc cga tcg tta cct caa ggg agt gga gat tgg gcc caa      816
     329  Val Arg Ile Ser Arg Ser Leu Pro Gln Gly Ser Gly Asp Trp Ala Gln
     330              260                 265                 270
     332  ctc cgg ccc ctc ctg gtc act ttt ggc cat gat ggc cgg ggc cat acc      864
     333  Leu Arg Pro Leu Leu Val Thr Phe Gly His Asp Gly Arg Gly His Thr
     334          275                 280                 285
     336  ttg acc cgc agg agg gcc aaa cgt agt ccc aag acg cgc cag gag gag      912
     337  Leu Thr Arg Arg Arg Ala Lys Arg Ser Pro Lys Thr Arg Gln Glu Glu
     338      290                 295                 300
     340  gaa tac atg ccc atg gag acg cgt acc cag tcg cag gac gtg tcc cgg      960
     341  Glu Tyr Met Pro Met Glu Thr Arg Thr Gln Ser Gln Asp Val Ser Arg
     342  305                 310                 315                 320
     344  ggc tcc ggt tct tca gac tac aac ggc agt gag tta aaa aca gct tgc     1008
     345  Gly Ser Gly Ser Ser Asp Tyr Asn Gly Ser Glu Leu Lys Thr Ala Cys
     346                  325                 330                 335
     348  aag aag cat gag ctc tat gtg agc ttc cag gac ctg gga tgg cag gac     1056
     349  Lys Lys His Glu Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp
     350              340                 345                 350
     352  tgg atc att gca ccc aaa ggc tac gct gcc aac tac tgt gat gga gag     1104
```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 10/01/2001
PATENT APPLICATION: US/09/784,911 TIME: 10:21:26

Input Set : A:\13406.asc
Output Set: N:\CRF3\10012001\I784911.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:80 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6